

Claims

- [1] An end seal having:
a front defining an outward direction,
a leading edge defining a downward direction, and
a trailing edge opposite the leading edge,
the end seal comprising a first lip, a second lip, and a third lip, each lip elongated and extending toward the leading edge and toward the trailing edge,
each lip having a portion having a radius of curvature about a respective center;
the second lip disposed between the first lip and the third lip;
the center of radius of curvature of the second lip offset from the center of radius of curvature of the first lip; and
the center of radius of curvature of the second lip offset from the center of radius of curvature of the third lip.
- [2] The end seal of claim 1 wherein the center of radius of curvature of the first lip is coaxial with the center of radius of curvature of the third lip.
- [3] The end seal of claim 1 wherein the first and third lips join toward the trailing edge.
- [4] The end seal of claim 1 wherein the end seal comprises PTFE.
- [5] The end seal of claim 1 further comprising a first spring means urging the end seal outwards.
- [6] The end seal of claim 5 further comprising a second spring means urging the end seal outwards.
- [7] An end seal having:
a top defining an outward direction,
a leading edge defining a downward direction, and
a trailing edge opposite the leading edge,
the end seal comprising a first lip, a second lip, and a third lip, each lip elongated and extending toward the leading edge and toward the trailing edge,
the second lip disposed between the first lip and the third lip;
wherein the first and third lips join toward the trailing edge.
- [8] The end seal of claim 7 wherein each lip has a portion having a radius of curvature about a respective center;
the center of radius of curvature of the second lip is offset from the center of radius of curvature of the first lip; and
the center of radius of curvature of the second lip is offset from the center of radius of curvature of the third lip.
- [9] The end seal of claim 7 wherein each lip has a portion having a radius of curvature about a respective center; and
wherein the center of radius of curvature of the first lip is coaxial with the center of radius of curvature of the third lip.

- [10] The end seal of claim 7 wherein the end seal comprises PTFE.
- [11] The end seal of claim 7 further comprising a first spring means urging the end seal outwards.
- [12] The end seal of claim 11 further comprising a second spring means urging the end seal outwards.
- [13] An end seal for sealing each end of a cavity consisting of a leading edge and a metering surface for application of a liquid having:
a front defining an outward direction toward the application surface;
a leading edge defining the area of first contact with the application surface; and
a trailing edge opposite the leading edge;
the end seal comprising a lip that approximately conforms to the application surface;
a spring supporting the end seal between the leading edge and the trailing edge from under the end seal toward the application surface.
- [14] The end seal of claim 13 wherein the end seal spring support point is a pivot.
- [15] The end seal of claim 13 wherein the end seal has a spring support under the trailing edge of the end seal.
- [16] The end seal of claim 14 wherein the end seal has a spring support under the trailing edge of the end seal.
- [17] An end seal for sealing each end of a cavity consisting of a leading edge and a metering surface for application of a liquid having:
a front defining an outward direction toward the application surface;
a leading edge defining the area of first contact with the application surface; and
a trailing edge opposite the leading edge;
the end seal comprising two lips that approximately conforms to the application surface elongated and extending towards the leading edge and toward the trailing edge;
the two lips joining toward the trailing edge; and
wherein a spring supports the end seal between the leading edge and the trailing edge from under the end seal toward the application surface.
- [18] The end seal of claim 17 wherein the end seal spring support is a pivot.
- [19] The end seal of claim 17 wherein the end seal has a spring support under the trailing edge of the end seal.
- [20] The end seal of claim 18 wherein the end seal has a spring support under the trailing edge of the end seal.
- [21] An end seal for sealing each end of a cavity consisting of a leading edge and a metering surface for application of a liquid having:
a front defining an outward direction toward the application surface;
a leading edge defining the area of first contact with the application surface;
a trailing edge opposite the leading edge;
the end seal comprising a lip that approximately conforms to the application

surface;

a support mounting location beyond the leading edge; and

a thin cross-section between the mounting location and the leading edge creating a flex point permitting deformation along the seal lips.

[22]

An end seal for sealing each end of a cavity consisting of a leading edge and a metering surface for application of a liquid, the end seal comprising:

a front defining an outward direction toward the application surface;

a leading edge defining the area of first contact with the application surface;

a trailing edge opposite the leading edge;

the end seal composing two lips that approximately conform to the application surface and extending toward the leading edge and toward the trailing edge and joining toward the trailing edge;

a support mounting location beyond the leading edge; and

a thin cross-section between the mounting location and the leading edge creating a flex point permitting deformation along the seal lips.

[23]

An end seal for sealing each end of a cavity consisting of a leading edge and a metering surface for application of a liquid, the end seal comprising:

a front defining an outward direction toward the application surface;

a leading edge defining the area of first contact with the application surface;

a trailing edge opposite the leading edge;

the end seal composing a first lip, a second lip, and a third lip, each lip elongated and extending toward the leading edge and toward the trailing edge and approximate conformity to the application surface;

the first and third lip join toward the trailing edge;

the second lip disposed between the first lip and the third lip;

the center of radius of curvature of the second lip is offset from the center of curvature of the first lip;

a support mounting location beyond the leading edge;

a thin cross-section between the mounting location and the leading edge creating a flex point permitting deformation along the seal lips.